Analysis, Design and Development of Point of Sales and Accounting Application for Restaurant SMEs

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Abstract

The purpose of this study was to analyze all the information required to support the operations of two restaurants in Depok, West Java (Soto Ngawi and Nasi Pecel mba Ira), especially in the sales system, inventory records and accounting records. The results of the analysis then used to build Point of Sales (POS) and accounting applications for operational support and reduce the level of error that often occurs because of the manual transaction records. The research methodology used in designing this application begins with the collection and analysis of requirements (interviews, document examination), conceptual database design, logical database design, physical database design, DBMS selection, application development and implementation. Application development is funded by the government through a program of Science and Technology for Society/Ipteks bagi Masyarakat (IbM) by the DP2M Directorate General of Higher Education (Dikti). The result of this research is a Point of Sales (POS) and accounting application specifically for restaurants. The results of the application development have been evaluated with regard to integrity, security, concurrency and recovery.Conclusions from this research is by using this Point of Sales (POS) and accounting system, which is specifically developed for restaurant, the transaction at Nasi Soto Ngawi and Nasi Pecel mba Ira run easier, more effective and more efficient in recording in terms of time.

Keywords: systems analysis, applications design, Point of Sales (POS), accounting

1. Introduction

SMEs have an important role in the Indonesian economy, this sector accounts for 56.7 percent of the Gross Domestic Product (GDP) and absorb 99.6 percent of the workforce (BPS, 2012). This accomplishment achieved with SME businesses management that have not been fully optimized, especially in financial management. Lots of SMEs do not have a good and informative financial management system. When the awareness about the need for good financial management of SMEs can be achieved among SMEs, the potential of SMEs will be more remarkable. Beside that it can improve the performance of its business; it's also helpfull when SMEs need to apply for bank loans, which usually requires financial reporting.

As stated in the strategic plan document prepared by the Ministry of Cooperatives, Small and Medium Enterprises, there are five main drawback of small industries in Indonesia, namely market orientation, quality of human resources, mastery of technology, market access, and capital. The main weakness of market orientation occurs because most of small industry products do not have the power to be exported to the world market. This is due to very limited use of information technology to promote small businesses. Factors inhibiting the use of information and communication technologies (ICTs) by small and medium enterprises according to the OECD report (2004) include (a) business process mismatch, (b) limitations in terms of managerial knowledge and use of ICT, (c) unavailability for development and maintenance costs of electronic systems, (d) the problem of computer networks and communications infrastructure, (e) the issue of trust and safety of the use of ICT, (f) legal uncertainty, and (g) the challenges associated with the adoption of electronic business processes.

Various limitations inherent to SMEs, especially for the aspect of its resources, it is needed to find a solution for financial management that can be easily applied to SMEs. In general, Small and Medium Enterprises (SMEs) still uses a simple accounting system and have not been able to

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provide financial statements that comply with national banks. According to Sularto and Wardoyo (2012), accounting records made by "Soto Ngawi" and "Nasi Pecel Mba Ira" restaurant, is still a very simple accounting records. Bookkeeping only include revenues and expenditures without any detail.

According to Sularto and Wardoyo (2012), SMEs ownerdid not have a good accounting recordsdue tothe following points:
1) They are running a small family business, so it is not necessary to have a good accounting records.
2) Lack of knowledge or skill related to accounting.
3) Do not have experts in accounting.
4) Funds used for business often mixed with personal funds, or using funds for buying goods without any recording.
5) Accounting deemed too complicated, as a very busy businessman, it is difficult to spend time for accounting.
6) The activity is still limited, so income is not fixed.

These factors appear as both restaurant owners have not use computers for accounting records. Recording at Nasi Pecel Mba Ira is still using Microsoft Word which is a word processing application, and only for applying for bank loans. Recording at Soto Ngawi is only hand written.

Accounting software on the market today is still considered to be too complicated of usage, and is not fitted to their needs. All of those problems will be solved if both the restaurant is doing the accounting by using application program designed specifically for restaurants. Easy to use accounting software will help managing their businesses, the need for fund management and financial reporting will be easily obtained. With the growth of the company, a more quick and accuraterecords will be highly needed. Current recordings may not seem troublesome, but along with the growth of the business, the more recording to do, the more overwhelmed for both partners in managing their finances, therefore, the use of accounting software is essential.

This study aims to understand the financial recording system and procedures that were carried out by two restaurants in Depok (Ngawi Soto and Nasi Pecel mba Ira), starting from record keeping, financial reporting, and the business health. By knowing and understanding the needs of financial management which is fitted with the business needs, it will gives a very important input for the development of application that has been built by Sularto and Wardoyo (2012) as the major part of this study.

2. Accounting Records on Indonesian SMEs

Small businesses remainan important part of the business environment (Smith, 2012; Lukács, 2005; Partomo, 2004). According to the Indonesian Central Statistics Agency (BPS), the number of SMEs in Indonesia in 2012 has reached 56.5 million; with 55 million of them are micro businesses, this number increased by 2.02% over the previous year. The growth of SMEs has an impact on increasing employment. Number of SME employment was 107 million people in 2012.

SMEs growth in relation with Indonesian economics, according to data from the Ministry of Cooperatives and SMEs, shows that during the years 2006 – 2010 is predicted to have an increase in the contribution of SMEs to the national GDP, total national non-oil exports and national investment. With a market share of 57.12% of SMEs in 2010, when compared to 2006 then in 2010, there has been an increase in the contribution of SMEs to GDP at current prices amounted to 94.37%, nor based on GDP at constant 2000 prices, the increase in 2010 compared to 2006 has reached 23.85%. While the data based on a national total non-oil export, the contribution of SMEs in 2010 reached 15.81%, up 42.12 from 2006 (Furqan, 2012).

Based on the above data, it can be concluded that the number of SMEs in Indonesia each year has increased significantly; this has resulted in the increasing

contribution of SMEs to the economy of Indonesia. Therefore, it is appropriate that all parties give attention to the development and empowerment of SMEs in Indonesia, including the effort to improve the ability of business and financial management, so that SMEs can be independent, productive and highly competitive.

Accounting information has an important role to achieve the success of the business, including for small businesses (Pinasti, 2007). To stay survive, small business owners and managers need an accounting information which is current, accurate and timely (Abor, 2005). That accounting information resulted from the accounting information system used by entrepreneurs. The use of accounting information systems affects the effectiveness of the decision-making process (Halim, 2003). Information related to the financial statements, can be used for measuring the levels of cost and different levels of corporate earnings, as well as measuring the performance of each unit that has been given the authority and responsibility (Tanjung, 2011).

However, small businesses generally do not or have not applied the principles of good financial management (Kristyowati, 2005), so the quality of the financial statements of SMEs is still low (Rudiantoro & Siregar, 2011) because the majority of SMEs have never made a transactions journal and models of conventional financial reporting system is the most suitable to be applied (Romdhoni, 2012). With this conventional accounting system, any customer or supplieris recorded on a separated card book containing all the transactions for the company, all the calculations are done by using calculators. The main drawback of the manual system is that it enables errors and that errors may go undetected for sometime.

According to Furqan (2012), some of the causes of the phenomenon on not convening an optimal accounting practices and not using accounting information on SMEs are:
1. Perception of the urgency of the existence of accounting information for SMEs. The SMEs have never felt the benefits of accounting information.

2. SMEs owner/staff Accounting Knowledge. Accounting knowledge of both the owners and accounting/finance's staff is not adequate.
3. Cost-benefit considerations (cost-effectivenes) for SMEs. Benefits gained on accounting practices are considered less than the costs to be incurred.
4. Size of SMEs. Number of SMEs in Indonesia is still dominated by Micro and Small Enterprises, which in both types of groups, still more individually managed with traditional management.

On the basis of the above presentation shows that the phenomenon on not convening an optimal accounting practices and not using accounting information on SMEs so far is not solely the fault or thelack of SMEs, but also because of the government and the community in not promoting accounting practices in SMEs optimally.

At first, SMEs do nothave achoice but to adopt the manual system, but with the introduction of PC-based accounting system, both computer hard ware and accounting software has become cheaper, it provides an opportunity for SMEs toadoptcomputer-based accounting. However, there are several factors that determine whether an organization will adopt the computer-based accounting or not. These factors make the 2 groups among adopters of computer-based accounting and non adopters.

Despite the growth of accounting software and PC has created an opportunityfor SMEs to adopt computer-based accounting, but also posed a problem for the adoption of innovation. Accounting is a critical application in all the companies in a variety of sizes. Changing the accounting system to adjust to the new technology could be a very difficult task where data needs to be converted from the existing system to the new system, accounting staff and all users need to be retrained and sometimes documents and reports should be redesigned.

By studying the factors that influence the adoption of computers, internet adoption and

the adoption of accounting software, Taragolaetal (2001) concluded that the probability of computer adoption is significantly influenced by the size of the business, the importance of creativity and innovation, education and computer training company managers and partners. However, Internet adoption is positively associated with computer training company managers, creativity and innovation, growth, stabilization and negatively related to intrinsic goal (become independent). However, the intention to adopt accounting software positively associated with a favorable attitude towards 'intrinsic goals' accounting. Conclusion of the study shows that factors that determine the adoption of computer-based accounting is actually different from the determination of ICT adoption in general.

Diffusion of innovation theory (Rogers, 1995) offers a conceptual framework for analyzing the adoption of ICT by enterprises. According to this theory, in addition to external variables, personal characteristics of the manager of the company and its characteristics have an impact on the adoption of innovation. One issue that remains is whether adopters to maximize the use of computer-based accounting systems. Marriott and Marriott (2000) noted that firms use computers to prepare accounting information, but usually not to their true potential. It was pointed out that the adoption of computer-based accounting research is not limited to the adopters and non-adopters, but also to maximize the adopters who want to learn computer-based accounting.

Some related research related with POS and Accounting application has been shown to help restaurant managers to run their business, such as research by Sasongko (2007) wich had built a food and beverage applications booking for restaurant. The applications are built using the Java language (J2ME) and implemented on Personal Digital Assistant (PDA) device using Palm operating system (Palm OS). With the increasing use of Smartphone, PDA devices become more affordable for SMEs. This application emphasising on recording of food and beverage orders.This application has been

shown to overcome the double booking (redundancies), and also able to overcome the sequence order problem. The waiter can directly move to other customer without giving orders to the cashier and the kitchen. It means that it can save time in a crowded situation. Other related research is done by Pratiwiningsih (2010) discussing about restaurant application for food and drinks menu booking. This application has been applied to one of the restaurants in Bandung West Java. This ordering menu information system was created using Visual Basic 6.0 as the primary interface and Microsoft Accessas the database. The results of this study have been simplifying the menu ordering data processing for business owners, and also created sales reports easily, quickly and efficiently.

3. Systems Analysis and Design

Restaurants in Depok selected in the POS and computer-based accounting application development, as exposed by BPS (Central Bureau of Statistics) Depok, Economic Growth Rate (LPE) Depok in 2010 reached 6.36. This value is higher than the rate of LPE of West Java which is only 6.22. Not only that, even beyond the National LPE that was just 6.10. Highest contributor of LPE Depok derived from trade, hotel and restaurant (restaurant) for about 8.38. Restaurants that studied limited to restaurants that employ less than 10 workers.

Stages to be carried out will be in accordance with the system development cycle in general, they are the system analysis, system design, system implementation and system evaluation. In the analysis phase of the system, the analysis to be carried out includes the analysis procedures, document analysis, and analysis of the resulting report. At this stage of system design, detailed specification process will be implemented on the solutions chosen in the process of system analysis. The next stage is the implementation of the system, will be testing the accounting software that has been built up to the implementation, documentation creation, and ending with evaluation of the implementation of new accounting software.

Data obtained from respondents will be processed using SPSS for analysis. The findings are presented using descriptive statistics.

3.1 Problems Identification

Based on the situation analysis and in-depth observation on both restaurants, found that both restaurants have not using a good accounting system. It is characterized by:
1) The absence of a good book keeping
2) Recording is only done on a regular book
3) Not all transactions are recorded in the accounting /book keeping
4) They assume that book keeping is not important.

Both restaurant, namely Nasi Pecel Khas Madiun Mba Ira and Soto Ngawi, they do not do book keeping due to the following points:
1) They are running a small family business, so it is not necessary to have a good accounting records.
2) Lack of knowledge or skill related to accounting.
3) Do not have experts in accounting.
4) Funds used for business often mixed with personal funds, or using funds for buying goods without any recording.
5) Accounting deemed too complicated, as a very busy businessman, it is difficult to spend time for accounting.
6) The activity is still limited, so income is not fixed.

These factors appear as both restaurant owners have not use computers for accounting records. Recording at Nasi Pecel Mba Ira is still using Microsoft Word which is a word processing application, and only for applying for bank loans. Recording at Soto Ngawi is only hand written.

The current system could potentially cause problems. Here are the problems that can arise:
1) Less accurate of all existing data
2) Timeliness in generating reports, requires a long time because the report is still generated manually.
3) The report can not be accessed at any time.
4) Less maximum control on balance materials in the warehouse.
5) Uncontrolled expired material.
6) Lack of data security, manual data susceptible to create problems.

3.2 System Weakness Analysis

The next step is to analyze the weakness of the existing system. To identify and provide solutions to the weaknesses of the existing system, PIECES framework was used (Performance, Information, Economy, Control, Efficiencyand Service). This analysis was used to identify the weaknesses in the system, so the new system can be better than the old one.

1) PerformanceAnalysis.
Performanceis a supporting part in job processes within an organization. Good performance information system will produce good outcomes.

Table 1.PerformanceAnalysis

Parameter	Analysis Result
Response time	Long transaction and reporting time, also cannot be produced at any time

The absence of an adequate information system which will disturb the performance of both restaurant when they have to deal with related parties primarily relating to creditors and prospective business partners. It will also interfere with the opportunity to increase the scale of business.

2) InformationAnalysis
Multimedia-based information systems capabilities in generating useful information can be evaluated to address problems and opportunities to resolve the issue. Increasing the effectiveness of information is not just

generating large amounts of information. In fact, too much information is abig problem.

Tabel 2.Information Analysis

Parameter	Analysis Result
Accurate	• The information provided is still prone to errors due to its done manually.
Relevant	• The resulting information system is notable to provide more value. • The information generated is very difficult toanalyze
Timeliness	• The required information is still lack on time • In generating reports still takes a long time due to the need to do the calculation manually • The report can not be obtained at any time.

In the old system, reports information is inaccurate because the information presented is very limited. Lack of timely information in the sense that information is not up to date and often get late because of the limitations in presenting the financial statements. Even on both restaurants, there are no adequate information systems for generating fast, accurate and relevant information. The absence of adequate information systems, often pose problems for both restaurants to access the banks. If the information systems is good and adequate, then the restaurants would get faster approval toget credit from banks, because one of the requirements to get a loan is a financial statement.

3) EconomicAnalysis

Economic value is the most common motivation for the passage of a project. Economic problems exist because of the report delays that lead to expenses problems which were caused by expensive material costs. Therefore, to obtain the maximum profit, it is needed to do savings on the costs incurred.

Tabel3.EconomicAnalysis

Parameter	Analysis Result
Costs	• The cost needed relatively higher because of any reporting is done manually. • Costs is not well documented • Costs can not be traced to suppliers
Benefit	With the huge cost, so the benefits is less optimal.

Based on the economic assessment, the conditions that exist today for both restaurants will be slower to be adjusted in case of a growing activities. In addition, from the use of resources, the old system is considered ineffective because of the time taken in processing the data is long enough, giving an increase in operating costs. Both restaurants must make financial statements from the beginning so it takes time and costs. With increasing time and cost, the benefits received should be less than optimal.

4) Control Analysis

Control system on a system intended to improve the performance of the material output control system.

Tabel 4.Control Analysis

Parameter	Analysis Result
Control	• Requires a lot of parties involved to handle all system • Material stock balances control is not maximized • Lack of control of the material that has expired
Security	• Data are susceptible to get problems due to manual data management • Data are not safe from vandalism

With the presence of erroneous data from the data source will result in inaccurate information obtained. Still often obtained data duplication cases.Because the old system is still done manually then data redundancy can not be detected so it influenced on data calculation and misinformation that will affect

management decisions. This condition occurs in both restaurants since they have not a good and adequate system. There is no control of the book keeping and records on both restaurants since they only record per functory and tend to be not orderly. Many transactions are not recorded, the tax payment was also an estimatation.

5) EfficiencyAnalysis

Efficiency analysisis an analysis related to increasement in the efficiency of the information systems operation. Efficiency is contrast to economic, economic related to the amount of resources used, while efficiency is related to how to use resources so it will not get wasted.

Tabel 5.Efficiency Analysis

Parameter	Analysis Result
Resources used	• Expenses incurred more like to be recorded manually • Cost, time and effort it takes relatively more but the benefit was less than optimal.

Efficiency analysisis an analysis related to an increase in the efficiency of the information systems operation. Efficiency is contrast to economic, economic related to the amount of resources used, while the efficiency of resource relate to how it is used and not wasted. The old system is very inefficient because of the long time in making the report. With the old system, information delivery to the user should trace their regular daily record, many transactions often not recorded, making it less efficient. In addition if you want to update the data, you must reproduce it. Submission of information to them an agement can not be accessed at all times and user have to use a hard copy.

6) Service Analysis

Analysis Services is focused on a review of how convenience the system provided that is

applied to complete the work and the ease of obtaining information.

Tabel 6.Service Analysis

Parameter	Analysis Result
Service	Services given the current systemis less quick and accurate in providing the information needed

Current restaurants conditions is there is no adequate information system so that when accurate and fast information needed then it will not be available.

3.3. Database Design

3.3.1 Table Relationship

After going through a phase of normalization in the data base to avoid redundancy, then the relationships among tables are designed as follows:
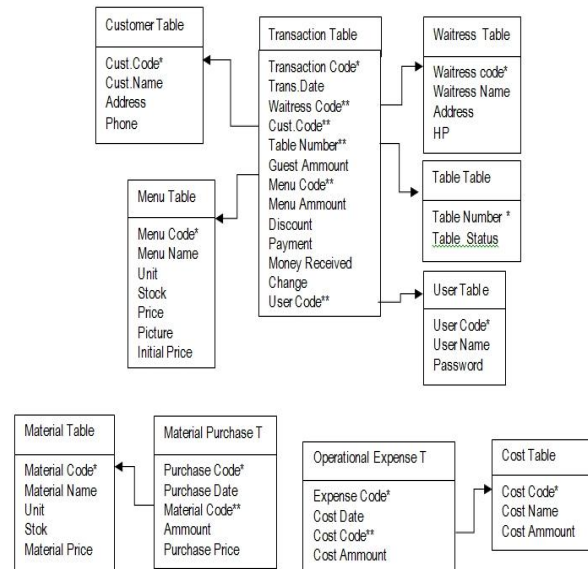

Figure1.Table Relationship

3.4. Data Flow Diagram (DFD)

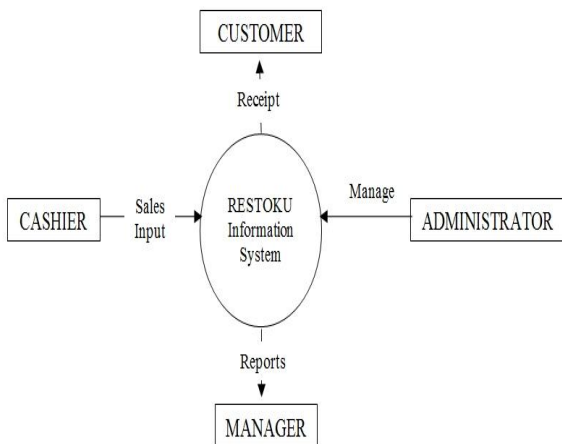### 3.4.1 Diagram Context

Figure2.Restaurant Information System (Restoku) Diagram Context
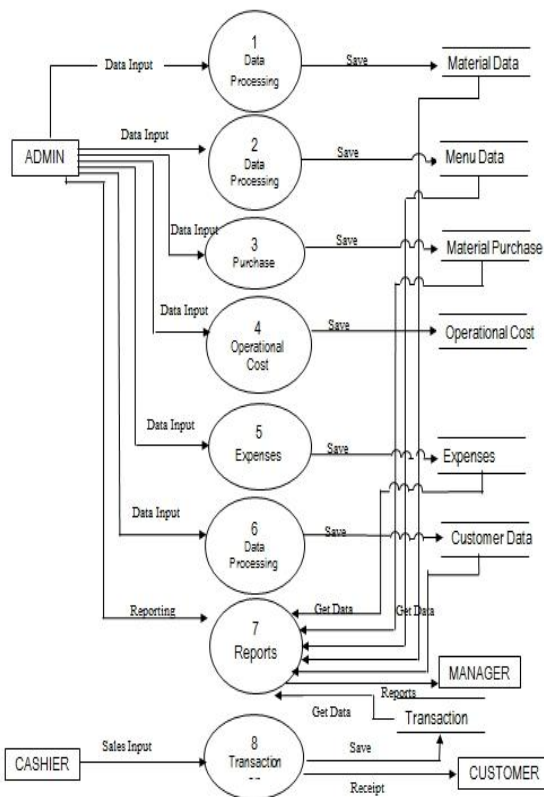
3.4.2 DFD Level 1

Figure3.DFD Level 1 "Restoku" Information System

4. Implication/Result

The results of system analysis and design have been implemented using Microsoft Access 2007 applications. Microsoft Access 2007 is chosen for several reasons, among others: the ease of building complex applications, easy to be modified as needed, and has a database that is easy to be converted to and from other formats. This application is equipped with POS devices such as receipt printers to print a receipt of payment by consumers. PC devices, monitors and printers obtained from the government through a program of Science and Technology for Society / Society for science and technology (IbM) DP2M by the Directorate General of Higher Education (Higher Education). Results of the application development is the POS and accounting software named "RESTOKU" which is currently available in two versions namely Restoku Soto Ngawi Version and Restoku Nasi Pecel Mba Ira version. Both versions are the same application, just different restaurant name. Currently Restoku application has been implemented at both the restaurants.

Figure 4. Restoku Screen Shots

After implementing the POS and accounting applications in both the restaurants, then both the restaurants has realized many benefits of computer-based accounting records, among others:

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1. Point of sales system available before implementation was using an old cash register, now it has been replaced by computer-based accounting application that comes with a receipt printer. Benefits obtained with this new application which is perceived by the manager of the restaurant is the print out of the receipt printer which is more complete and informative, all data entered to produce prints from receipt printer also stored in acomplete, neat and very useful database for different administrative tasks. It was not obtained when only using a cash register.
2. Applications that have been developed and implementedon both the restaurants has produced a variety of reports, the most important report is the "Income Statement". This report can be made based on a certain period as the user needs, by determining the starting date and finished date of the desired period.
3. This applicational so produces a variety of other reports, such as: "Transaction Report" which contains details of all transactions corresponding period specified by the user, "Report List Menu" which contains the entire menu of food and drinks available at the restaurant with all the menu (food/drinks) pictures,"Customer Report" that contains restaurant customer data, "raw Materials Purchase Report" to record the purchase of raw materials required for the operation of the restaurant, "waitress Data Report" which contains complete data maids working in the restaurant.
4. This application also comes with "Statistics" menu, this menu is used to display statistics and total customer transactions daily, monthly and yearly.
5. For security system, this application also has login menu using customized access rights to the name of the user who login.
6. The application is also designed to be multitasking, so waitress can perform transaction data input while the consumers enjoying the food/drinks that has been ordered, that way when the consumer finished eating and wants to do the payment, the transaction data is ready to be printed, but also can be edited for additional menu ordered by the consumer.

The results of the application development has been evaluated with regard to integrity, security, concurrency and recovery. Microsoft Access 2007 applications have also been ensuring the integrity, security, concurrency and recovery of applications built with it. Nonetheless, this restaurant is also built by considering the factors of integrity to ensures that the things the users are trying to do are *correct* and has been tested by making menus and application buttons that is able to prevent the occurrence of errors made by user. In terms of security, the application is also equipped with auserlevelization based on login account. Ases distinction rights for each user which varies depending on the level of user on the application, so it will prevent fatal errors that might occur when the application do not have user levelization. Furthermore in terms of concurrency, this application is designed to be used by one user only, so it will not get the problems caused by the use of multi-user applications. Recovery test has also been done by trying to perform a database recovery using the backup database that was created and the result is an easy walk back to the application using an existing database backup.

5. Conclusion

The purpose of this study was to analyze all the information required to support the operations of two restaurants in Depok, West Java (Soto Ngawi and Nasi Pecel mba Ira), especially in the sales system, inventory records and accounting records. By utilizing applications that have been built based on the analysis of the problems and user needs, then the manager of the restaurant got many benefits, such as ease in the company's financial accounting records which used to be done manually then replaced by computer-based accounting application. By using a variety of reports generated from the application, the report then use full for a

variety of business decisions, starting from raw materials handling, until generating the income statement. Service to consumers has also got better, because the consumer does not have to wait long enough to get the bill receipt, and the invoice receipt is also printed with more complete and informative information. Conclusions from this researchis by using this Point of Sales (POS) and accounting system, which is specifically developed for restaurant, the transaction at Nasi Soto Ngawi and Nasi Pecel mba Ira run easier, more effective and more efficient in recording in terms of time.

References

Amidu, M and Abor, J (2005), "Accounting Information and Management of SMEs in Ghana", *Journal of Management Policy and Practice*, Vol. 12, Iss. 4, pp. 146 - 155

Furqan, Andichairil and Fikry Karim (2012), "Problematika Praktik Akuntansi Pada Usaha Mikro, Kecil Dan Menengah (UMKM): Serta Keterkaitannya Terhadap Akses Kredit", *Media Litbang Sulteng*.

Kristyowati, Fongnawati Budhijono (2005), "Sistem Informasi Akuntansi Pada Usaha Kecil",*Akuntabilitas, Universitas Pancasila, Volume* 5, *NO.1 September,* 47-60

Pratiwiningsih, Eka; Advensius Johanes Siregar; Hendra Kusmayadi (2010), "*Aplikasi Restoran Untuk Pemesanan Menu Makanan Dan Minuman Berbasis Visual Basic 6.0"*, Skripsi Politeknik Telkom Bandung

Sasongko, Adi (2007), "*Aplikasi Pemesanan Makanan Dan Minuman Pada Rumah Makan*" ,Skripsi Fakultas Ilmu Komputer dan Teknologi Informasi Universitas Gunadarma

Sularto, Lana and Wardoyo, (2012), "Laporan Akhir Iptek bagi Masyarakat (IbM) Rumah Makan di Depok Jawa Barat", *Program Ipteks Bagi Masyarakat* (IbM) DP2M Ditjen Dikti.

Lukács, E. (2005), "The economic role of SMEs in World economy, especially in Europe", *European Integration Studies*

Marriott, N. and Marriott, P (2000), "Professional Accountants and the Development of a Management Accounting Service for the Small Firm: Barriers and Possibilities", *Management Accounting Research*

OECD (2004). "Promoting Entrepreneurship and Innovative SMEs in a Global Economy: Towards a More Responsible and Inclusive Globalization: ICT, E-BUSINESS AND SMEs". *Second OECD Conference Of Ministers Responsible For Small And Medium-Sized Enterprises (SMEs)*, Organisation for Economic Co-Operation And Development (OECD)

Partomo, Tiktik Sartika (2004), "Usaha Kecil Menengah Dan Koperasi", *Center For Industry And Sme Studies Faculty Of Economics University Of Trisakti*.

Pinasti (2007), "Pengaruh Penyelenggaraan dan Penggunaan Informasi Akuntansi Terhadap Persepsi Pengusaha Kecil atas Informasi Akuntansi: Suatu Riset Eksperimen". *Jurnal Riset Akuntansi Indonesia*. Vol. 10 (3). Hal. 321-331.

Rizki Rudiantoro, Sylvia Veronica Siregar (2012), "Kualitas Laporan Keuangan UMKM serta Prospek Implementasi Sak Etap", *Jurnal Akuntansi dan Keuangan Indonesia* Volume 9 - No. 1, Juni.

Rogers, E.M. (1995), "Diffusion of Innovations", The Press, New York.

Romadhoni, Lailatur (2012), "Model Pelaporan Keuangan Bagi UKM (Studi pada Laboratorium Home Agroindustry Model UNISMA Malang)", *Skripsi* UIN Maulana Malik Ibrahim

Smith, Kingston (2012), "Success in challenging times: Key lessons for UK SMEs", University of Surrey

Tanjung, Yodi Arista (2011), "Peranan Sistem Informasi Akuntansi Dalam Pengambilan Keputusan Pada PT. Aneka Gas Industri Cabang Medan", *Student Paper* Universitas Sumatera Utara.

Taragola N., Van Lierde, D. dan Van Huylenbroeck, G. (2001), "Adoption of computers, internet and farm accounting software at the glasshouse holdings of the Belgian farm accountancy data network". *Proceedings of the* 'Third European Conference of the European Federation for Information Technology in Agriculture, Food and the Environment – EFITA 2001', 18 -20 juni 2001, Montpellier, France.

Widianto, Halim (2003), "Efektifitas sistem informasi akuntansi dalam pengambilan keputusan manajerial",*Masters thesis*, BINUS

BPS (Badan Pusat Statistik), http://www.bps.go.id/

Portal Berita Resmi Pemerintah Kota Depok, http://www.depok.go.id